## REMARKS/ARGUMENTS

Claims 1-30 are pending in the present application.

This Amendment is in response to the Office Action mailed June 7, 2005. In the Office Action, the Examiner rejected claims 1-6, 10, 11-16, 20, 21-26, and 30 under 35 U.S.C. §103(a). In addition, the Examiner indicated allowable subject matter for claims 7-9, 17-19, and 27-29 if they are rewritten in independent form including all of the limitations of the base claim and any intervening claims. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

### *Claim Objections*

1. The Examiner objects to claim 28 due to minor informalities. Applicant has corrected the noted informality and respectfully requests that the Examiner withdraw the objection to claim 28.

### *Rejection Under 35 U.S.C. § 103*

1. In the final Office Action, the Examiner rejected claims 1-6, 10, 11-16, 20, 21-26, and 30 under 35 U.S.C. §103(a) as being unpatentable over "The Cache Memory Book", Jim Handy, Academic Press, 1993, pp 37-93 ("Handy") in view of U.S. Patent No. 6,272,598 issued to Arlitt et al. ("Arlitt"). Applicants respectfully traverse the rejection and contend that the Examiner has not met the burden of establishing a prima facie case of obviousness.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP §2143, p. 2100-129 (8th Ed., Rev. 2, May 2004).* Applicants respectfully contend that there is no suggestion or motivation to combine their teachings, and thus no *prima facie* case of obviousness has been established.

Handy discloses the cache memory organization. A cache unit includes a cache data RAM, a cache tag RAM, and control logic, interfacing with the CPU (Handy, Figure 2.10). A cache may be split into instruction cache to store instructions and a data cache to store data

(Handy, page 60, section 2.2.3). Cache eviction is a process of writing data back to the main memory when it is being replaced in the cache (Handy, Page 63). Handy merely discloses a typical organization of a cache unit, not specifically the cache trace eviction.

Arlitt discloses a web cache performance by applying different replacement policies to the web cache. A Least Frequently Used (LFU)-aging replacement policy replaces the LFU objects, avoiding cache pollution. The LFU component maintains a frequency count for each object in the cache (Artlitt, col. 6, lines 42-55). The object is not a trace.

Handy and Arlitt, taken alone or in any combination, does not disclose, suggest, or render obvious (1) a cache manager to manage a transfer of a trace, (2) a first cache coupled to the cache manager to evict the trace based on a replacement mechanism, and (3) a second cache coupled to the cache manager to receive the evicted trace based on a first number of accesses to the trace. There is no motivation to combine Handy and Arlitt because neither of them addresses the problem of trace cache filtering. There is no teaching or suggestion that a trace cache is present. Handy, read as a whole, does not suggest the desirability of receiving the evicted trace based on a first number of accesses to the trace. For the above reasons, the rejection under 35 U.S.C. §103(a) is improperly made.

Handy merely discloses an instruction cache to store instructions, not a trace. A trace is defined as a sequence of basic blocks that have been executed by a program (See, for example, Specification, page 5, lines 10-13), not merely unorganized instructions. Furthermore, Handy merely discloses transferring an updated line to the main memory once it is to be removed from the cache (Handy, page 63, lines 24-26). A cache line is merely the smallest portion of the cache which has a unique address tag (Handy, page 64, section 2.2.5). Therefore, a line is not a trace.

Arlitt merely discloses replacement of Web objects, not a trace. Web objects are components of a Web page, such as audio files, HTML files, graphic files, or video files. They may be other files transferred via the Internet, such as File Transfer Protocol (FTP) transfers (Arlitt, col. 4, lines 30-34). Furthermore, Arlitt does not disclose a second cache to receive the evicted trace.

"When determining the patentability of a claimed invention which combined two known elements, 'the question is whether there is something in the prior art as a whole suggest the desirability, and thus the obviousness, of making the combination.'" In re Beattie, Lindemann

Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 1462, 221 USPQ (BNA) 481, 488 (Fed. Cir. 1984). To defeat patentability based on obviousness, the suggestion to make the new product having the claimed characteristics must come from the prior art, not from the hindsight knowledge of the invention. Interconnect Planning Corp. v. Feil, 744 F.2d 1132, 1143, 227 USPQ (BNA) 543, 551 (Fed. Cir. 1985). To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness. In other words, the Examiner must show reasons that a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the prior elements from the cited prior references for combination in the manner claimed. In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1996), 47 USPQ 2d (BNA) 1453. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or implicitly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973. (Bd.Pat.App.&Inter. 1985). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Furthermore, although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." In re Mills 916 F.2d at 682, 16 USPQ2d at 1432; In re Fitch, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992).

In the present invention, the cited references do not expressly or implicitly suggest managing a transfer of a trace, evicting a trace, or receiving the evicted trace based on a first number of accesses to the trace. In addition, the Examiner failed to present a convincing line of reasoning as to why a combination of Handy and Arlitt is an obvious application of trace cache filtering.

Therefore, Applicants believe that independent claims 1, 11, 21 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejections under 35 U.S.C. §103(a) be withdrawn.

***Allowable Subject Matter***

1. In the final Office Action, the Examiner indicated allowable subject matter for claims 7-9, 17-19, and 27-29 if they are rewritten in independent form including all of the limitations of the base claim and any intervening claims. In light of the above amendments and remarks, Applicants respectfully request the objections be withdrawn.

***Conclusion***

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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Dated: September 7, 2005 By _____

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*Tu Nguyen* *Date*